

# **EXHIBIT 219**

**IN THE UNITED STATES DISTRICT COURT FOR  
THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

DONNA CURLING, et al.

**Plaintiff,**

**VS.**

BRIAN P. KEMP, et al.

**Defendant.**

**CIVIL ACTION FILE NO.: 1:17-cv-2989-AT**

## SEVENTH DECLARATION OF PHILIP B. STARK

**PHILIP B. STARK** hereby declares as follows:

1. This statement supplements my declarations of September 9, 2018; September 30, 2018; October 22, 2019; December 16, 2019; August 23, 2020; and August 31, 2020. I stand by everything in the previous declarations.
2. In his testimony on 11 September 2020, Defendant’s expert Dr. Ben Adida made a number of incorrect assertions about risk-limiting audits (RLAs), including how they work, when they are applicable, and what they accomplish; he also misrepresented the conclusions of two papers on voters’ ability to verify BMD printout. I shall try to clarify some of the errors.
3. The “risk” that a risk-limiting audit was invented to limit—the reason for its name—is the risk of certifying a reported electoral outcome that is incorrect. That risk is not merely from tabulation errors, nor is hacking the only source of the risk. There are risks from

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to mark a ballot, that would not suffice to ensure that BMD malfunctions do not change the outcome of one or more contests. Virtually every voter needs to check, and check well.

12. There is a substantial amount of evidence in this case that voters in Georgia do not check BMD printout. Supplemental Declaration of Richard DeMillo dated 16 December 2019 (Document 680-1), at ¶22. Supplemental Declaration of Rhonda J. Martin dated 16 December 2019 (Document 680-1), at ¶13–14. Declaration of Elizabeth Throop dated 15 December 2019 (Document 680-1), at ¶30–33. Declaration of Aileen Nakamura dated 16 December 2019 (Document 680-1), at ¶33–40. Declaration of Marilyn Marks dated 20 August 2020 (Document 800-3), at ¶15. Declaration of Aileen Nakamura dated (Document 723) at 12. Declaration of Samantha Whitely dated 16 August 2020 (Document 800-6), at ¶25–26. Declaration of Harri Hursti dated 24 August 2020 (Document 809-3), at ¶7, 13, 19, 86. Declaration of Laurel Dowswell dated 17 August 2020 (Document 809-11) at ¶18. I understand that there are in-person observations covering seven elections between November 2019 and August 2020 in evidence in this case.
13. Dr. Adida testified that RLAs are meant to be an audit of the scanners and that RLAs check (only) the tabulation.<sup>2</sup> That is incorrect in more than one way, as I shall explain.
14. First, as I explained in my previous declaration, ballot-polling RLAs do not “check the tabulation.” Rather, they check whether an accurate manual tabulation of the paper trail would find the same winner(s).

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<sup>2</sup> He also said or implied that there is no inherent difference between checking the tabulation of hand-marked paper ballots and checking the tabulation of BMD printout. But there is.

reported by the tabulators. If the comparison shows there is something “fishy,” the audit continues. If not, the audit stops.

25. Judge Totenberg asked Dr. Adida whether the approach he described suffers from “confirmation bias.” It does. The procedure Dr. Adida described is not how risk-limiting audits work.
26. RLAs assume that the reported outcome is *wrong*, not that the reported outcome is *right*. They try to rule out the possibility that the reported winner(s) did not really win—not to “confirm” the reported tally. RLAs examine more and more ballots until either (a) the examined ballots give convincing evidence that the reported winners really won or (b) all the ballots have been manually inspected so the correct outcome is known. No form of RLA assumes that the reported results are correct nor that the margin is correct.
27. I shall sketch how a ballot-polling risk-limiting audit works. It starts with a paper trail of votes that has been established to be trustworthy by a compliance audit. It then requires a “ballot manifest,” a detailed description of how that paper record is organized and stored, for instance, “there are 403,992 ballot cards<sup>4</sup> in all, stored in 1027 boxes. Box 1 contains 527 ballot cards. Box 2 contains 763 ballot cards. Etc.” The ballot manifest should be created without reliance on the voting system, because the voting system could misreport the numbers; moreover, human error could cause the voting system to report the wrong number, for instance, if a box of ballots was not scanned. The reported winner really won if, in the full set of ballots, more ballot cards have votes for the reported winner than for any other candidate.

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<sup>4</sup> I use the term “ballot card” rather than “ballot” because some ballots consist of more than one card (page). In general, the pages of a multi-card ballot do not stay together in the scanning and storage process.

28. Given the ballot manifest, a ballot-polling audit selects ballot cards at random from the ballot manifest, e.g., the 39<sup>th</sup> ballot in box 492, the 356<sup>th</sup> ballot in box 300, etc. The votes on those ballot cards are read by hand.
29. Some of the selected ballots might not have a valid vote in the contest; some might have votes for the reported winner; and some might have votes for other candidates.
30. In a small random sample of ballot cards, there can be a moderate chance that there will be substantially more votes for the reported winner than for any other candidate even if the outcome was a tie or the reported winner actually lost. But the larger the sample, the less likely it is that a candidate will have a substantial majority of votes in the sample if that candidate does not have more votes than other candidates in the full paper trail (i.e., if that candidate did not actually win).
31. A risk-limiting audit makes this precise: if there is a large enough majority for the reported winner in a large enough sample of ballots, it is implausible that anyone other than the reported winner actually won, because it would be extremely unlikely to see such a majority for the reported winner in the sample if anyone other than the reported winner had actually won. A risk-limiting audit with a risk limit of 5 percent examines ballots until the chance of observing so many votes for the reported winner is less than 5 percent if any other candidate had won—or until every ballot card has been manually inspected. The key property of a risk-limiting audit is that the chance it stops short of a full hand count is not greater than the risk limit (here, 5 percent) if that hand count would show that someone other than the reported winner actually won.
32. On a personal note, while I am pleased that my invention has gotten traction, I am deeply troubled that risk-limiting audits are being used to whitewash poorly designed election

systems and insecure electoral practices. Risk-limiting audits of a trustworthy paper trail are a powerful and efficient tool to ensure that the reported winners really won. Risk-limiting audits of an untrustworthy paper trail are a distraction from fundamental problems in election integrity, not a cure. RLAs are not magic. They cannot limit the risk of certifying a wrong outcome without a trustworthy paper trail. BMD printout is not trustworthy because it is a record of what the computer did, not what the voter did; there is no test or audit that can make it trustworthy. It is that simple.

I declare under penalty of perjury, in accordance with 28 U.S.C. § 1746, that the foregoing is true and correct.

Executed on this date, 13 September 2020.

A handwritten signature in black ink, appearing to read "Philip B. Stark", is written over a horizontal line.

Philip B. Stark